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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,340	09/05/2003	Alfred Wenger	9092-0158	7803

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EXAMINER

CYGAN, MICHAEL T

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,340

Applicant(s)

WENGER ET AL.

Examiner

Michael Cygan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☒ Certified copies of the priority documents have been received in Application No. 09/844,013.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05 Dec 2003
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 38 recites the limitation "said correction value" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12, 14-18, 20, 22-26, 28, 30-34, 36, 37, 39-42, 46-48, and 51-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Drahm (US 5,531,126). Drahm discloses the claimed invention, a vibration meter comprising a transducer assembly having a hollow (i.e., containing a lumen) flow tube [13] inserted into a pipe (see abstract) and clamped at the ends

(Figures 1b,2b) to enable vibratory motion (column 3, lines 14-15), an electromechanical excitation element [20] responsive to adjustable frequencies (column 3, lines 58-64) producing spatial deflections of the flow tube (column 3, lines 14-15), upstream and downstream sensors [18,19] responsive to lateral tube deflections and generating representative signals (column 3, lines 51-64), and meter electronics (Figures 4-8) generating excitation current (column 6, lines 43-46) and an evaluation circuit which takes the quotient of the excitation current (a friction value due to force applied in the transverse direction as disclosed at column 6, lines 43-45) and sensor signals (a flow speed estimate as disclosed at column 5, line 65 through column 6, line 4) to produce a viscosity value of the fluid flowing through the meter (column 7, lines 38-58 and column 8, lines 50+) in addition to mass flow and density values (column 6, lines 1-4). The viscosity is inherently a determination of damping due to the measuring tube being filled with fluid of a certain viscosity and the dummy tube having no measurement fluid. See also entire disclosure of Drahm.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19, 27, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drahm (US 5,531,126) in view of Drahm (EP 849,568 A1). Drahm '126 discloses the claimed invention except for the generation of torsions about the flow tube. The structural feature missing from Drahm '126 is a lever arrangement (which causes torsions, see applicant's page 17, line 15 through page 18, line 2). Drahm '568 teaches the use of a lever arrangement (Figure 15) as an alternative form to a non-levered arrangement (e.g., Figure 2); see column 14, lines 10-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a levered arrangement as taught by Drahm '568 in the invention of Drahm '126 to form the vibration means, since this would result in torsional modes which are well known in the flow art to be used for viscosity analysis.
4. Claims 13, 21, 29, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drahm (US 5,531,126) in view of Van Cleve (US 5,661,232). The claimed invention is considered to be taught except for determining density from a sensor value and determining viscosity therefrom. Van Cleve teaches determining density from a sensor value and determining viscosity therefrom in a Coriolis-type viscosity sensor; see entire document especially column 8 lines 48-59. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use determining density from a sensor value and determining viscosity therefrom as taught by

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Van Cleve (US 5,661,232) in the invention of Drahm '126 to determine viscosity, since this would result in a viscosity determination which is based upon current data and is compensated for actual measurement conditions.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 12-17, 19-26, 28-34, and 36-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,651,513. Although the conflicting claims are not identical, they are not patentably distinct from each other because each element of the claims was disclosed in claims 1-12 of the '513 patent or an obvious combination of the claims thereof.
6. Claims 18, 27, and 35 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of

U.S. Patent No. 6,651,513 in view of Drahm (EP 849,568 A1). '513 claims the claimed invention except for the generation of torsions about the flow tube. The structural feature missing from '513 is a lever arrangement (which causes torsions, see applicant's page 17, line 15 through page 18, line 2). Drahm '568 teaches the use of a lever arrangement (Figure 15) as an alternative form to a non-levered arrangement (e.g., Figure 2); see column 14, lines 10-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a levered arrangement as taught by Drahm '568 in the invention of '513 to form the vibration means, since this would result in torsional modes which are well known in the flow art to be used for viscosity analysis.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eckert (US 6,513,393 B1) discloses a Coriolis flow density meter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is (571) 272-2175. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Cygan  
Primary Examiner  
Art Unit 2855